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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/653,821

09/03/2003

Nathan Lee Gray

1171/41357/134

4123

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7590

09/11/2006

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EXAMINER

HOOK, JAMES F

ART UNIT

PAPER NUMBER

3754

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/653,821

Applicant(s)

GRAY, NATHAN LEE

Examiner

James F. Hook

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/19/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

The amendment filed June 19, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the added language that states the reinforcing member "substantially" improves axial stiffness is considered new matter where the specification does not support the term "substantially" where such adds a level of degree to the axial stiffness which was not set forth in the originally filed specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 7, 14, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Darling. The patent to Darling discloses the recited limb for a breathing

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circuit comprising a very thin walled conduit as seen in figure 1, a first connector 42, a second connector 44, an elongate reinforcing member 24 lying freely within the thin walled conduit along a non torturous path as seen in figure 1, from one end of the conduit to the other end and connected with the first and second connectors, the reinforcing member is solid and substantially circular in cross section and two ends, the reinforcing member contains a resistance heating element 20, cords 22 are also provided which are non-elastic within the reinforcing member which would make it resilient and not plastically deform, and the method of providing such is also set forth.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dryden (258) in view of Hughes. The patent to Dryden discloses the recited limb for a breathing circuit comprising a very thin walled conduit as seen in figure 4, a first connector 32, a second connector 13, an elongate reinforcing member 31 lying freely within the thin walled conduit along a slightly torturous path as seen in figure 4 where the reinforcing member is hollow which passes through the two connectors in a blind manner, the member is small and too small for gas delivery to the patient but large enough to be used as a feedback conduit, from one end of the conduit to the other end and connected with the first and second connectors, where the connectors are provided

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with bumps which are a rib for engagement with a helical rib of the breathing conduit, a shoulder formed by the rib. The patent to Dryden discloses all of the recited structure with the exception of having the reinforcing element non-torturous and the connectors having helical protrusions and recess for a securing collar. It is considered old and well known in the art to provide a recess for a securing collar on a connector and such would be an obvious choice of mechanical expedients over a connector not provided with one, where such would prevent failure. The patent to Hughes discloses that it is old and well known in the art to form hollow reinforcement member 18 to be non-torturous when provided in a thin walled conduit 12 provided with a helical rib. It would have been obvious to form the ribs on the connectors of helical ribs to allow for a helically corrugated pipe to connect thereto and to form the tube in a non-torturous manner as suggested by Hughes as such is an alternate embodiment for hollow reinforcement elements in thin walled tubes and such would allow for a simpler construction thereby saving money using less materials and to allow for faster connection of the ends to the hose saving on manufacturing costs.

Claims 2, 8, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darling. The patent to Darling discloses all of the recited structure with the exception of various dimensional and stiffness values for the elements, however, such is considered merely a choice of mechanical expedients to use routine experimentation to arrive at optimum values as such only requires routine skill in the art to optimize values using routine experimentation and choices of mechanical expedients.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Darling in view of Dickenson. The patent to Darling disclose all of the recited structure with the exception of utilizing a positive temperature coefficient heating element. The patent to Dickenson discloses that it is old and well known in the art to provide hoses with heating elements including resistance type, and positive temperature coefficient heating elements as such are equivalent types of heaters used in hoses. It would have been obvious to one skilled in the art to substitute a positive temperature coefficient heating element for the resistance heating element of Darling as suggested by Dickenson as such are taught to be equivalent types of heaters for hoses and such would provide different benefits to a standard resistance heating element thereby making the hose more useful and thereby save money.

Claims 17, 18, and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darling in view of Moseley. The patent to Darling discloses all of the recited structure with the exception of providing a cover layer over the spiral reinforcement that is made of a braided sheath of PET fibers. The patent to Moseley discloses that it is old and well known to form corrugated conduits of layers over spiral reinforcing wires where the layers can be formed of woven or braided PET yarn. It would have been obvious to one skilled in the art to provide an outer sheath formed of braided PET fibers as suggested by Moseley where such is an alternative material used over spiral reinforced conduits to protect them from damage and thereby reduce replacement costs and save money.

***Response to Arguments***

Applicant's arguments filed June 19, 2006 have been fully considered but they are not persuasive. With respect to the rejections under Dobritz, Norlien, and Coleman such arguments are moot now that the rejections under these references have been dropped. With respect to applicant's discussion of the meaning of the term "very thin walled conduit" applicant should note that the remaining references being applied as either base references in 103 rejections or in 102 rejections meet the criteria set forth in applicant's specification where such is merely based upon an environment in which the tube is to be used and what stresses it might see, not any specific dimension of thickness, and further applicant's specification describes further prior art hoses which meet the criteria of applicant's definition of very thin walled conduit and such hoses have the same structure as Darling and Dryden (258) therefore the references meet this language. With respect to the reinforcing of the conduit by the member running through, any structure running through another structure would provide at least some degree of axial stiffness to the entire conduit inherently, where no degree of stiffness is set forth in the claim language, therefore the references meet this limitation as well, where the term substantially is an unsupported term of degree which has been given wide interpretation by the courts to include large ranges, and it is believed the structures running inside of the conduits of the prior art would supply some stiffness which can be considered to cover the term substantially, especially when such term has no support in the specification. With respect to Darling improving axial stiffness "including compressive" such is not persuasive when the term compressive is not set forth in the claim language and it is not clear such was positively set forth in the specification as

well, therefore the references do teach structure within the tubing which would provide some degree of axial stiffness inherently, see discussion above. With respect to the arguments directed at Hughes and Dryden (258) not teaching an elongate reinforcing member along a non torturous path, such is not persuasive when the reference to Hughes is used to teach this feature and modify that of Dryden, and Hughes sets this forth in figure 1 which shows a non torturous path. With respect to the prior art not teaching the same problem to be solved, such is not required in the prior to meet the claimed subject matter, especially when such is not part of the claim language, therefore this argument is not persuasive.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to Neaves (508) disclosing state of the art reinforced hoses.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



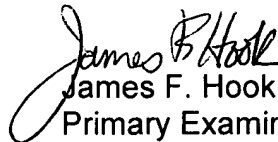
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
James F. Hook  
Primary Examiner  
Art Unit 3754

JFH